CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
maintained by the
CALIFORNIA DEPARTMENT OF FISH AND GAME
and supported by the
CALIFORNIA INTERAGENCY WILDLIFE TASK GROUP
Database Version 8.1 (2005)

B228 Royal Tern Sterna maxima
Family: Laridae Order: Charadriiformes Class: Aves

Written by: E. Beedy
Reviewed by: L. Mewaldt
Edited by: R. Duke

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Fairly common, but localized winter visitor to offshore waters and coast of southern California, north to Santa Barbara Co. (Garrett and Dunn 1981). Also found at Morro Bay, San Luis Obispo Co. (Garrett and Dunn 1981), but extremely rare north of this region. Has not been recorded recently north of San Francisco Bay (McCaskie et al. 1979). In southern California, most numerous at the Channel Islands and at San Diego Bay, where a few nonbreeders remain through the summer. Nesting on salt ponds at south end of San Diego Bay has been attempted twice (Garrett and Dunn 1981). In former years, was more common in northern California, especially from September through March (Grinnell and Miller 1944). Numbers have declined during the past 30 yr, perhaps resulting from a range extension of the closely related elegant tern (Cogswell 1977).

SPECIFIC HABITAT REQUIREMENTS

Feeding: While foraging, frequents pelagic waters well offshore, but also flies along beachlines (Grinnell and Miller 1944), coastal estuaries, and lagoons (Cogswell 1977). Feeds mostly upon small fishes, captured from hovering flight in dives from 40-60 ft (Terres 1980). A strong flier; may dip bill into water like black skimmer, taking squids, crabs, shrimp, and fish (Buckley and Buckley 1972). Has been observed stealing food from brown pelican and other species (Bent 1921).

Cover: Roosts on coastal strand and tidal flats (Grinnell and Miller 1944).

Reproduction: While breeding, confined to the shores of North and Central America, and equatorial West Africa. Visitors to California probably nest along coastal Mexico and islands in the Gulf of California (Harrison 1983). Usually nests on sandy beaches or dredging spoils. Prerequisites for colonies are isolation from land predators, good visibility, and nearby shallows for feeding (Buckley and Buckley 1972). Ideal locations are at, or near, inlets between bays and oceans. Often nests near other species such as gulls, terns, or skimmers. Eggs are laid in shallow depressions lined with vegetation, shells, fishbones, or debris (Buckley and Buckley 1972).

Water: Not known to use fresh water (Cogswell 1977).

Pattern: In California, feeds over pelagic waters; less commonly inshore. Roosts on tidal flats and beaches (Grinnell and Miller 1944).

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity. This species roosts much of the day on beaches, dikes, estuaries, or lagoons.

Seasonal Movements/Migration: Although small numbers can be found in southern California all year post-breeders do not arrive in numbers until October. Most depart for southern breeding grounds by late February (Garrett and Dunn 1981). This species exhibits a reverse migration by flying north after breeding (Dawson 1923).

Home Range: No data found.

Territory: Perhaps as an antipredator device, nests exceptionally close together. In Virginia and North Carolina, maximum nest density was 7.4/m2 (0.8/ft2) (Buckley and Buckley 1972).

Reproduction: In the eastern U.S., arrives at nesting colony in March, but does not lay eggs until early May. Clutch usually contains 1 egg, rarely 2 (Buckley and Buckley 1972). Single-brooded; incubation usually 30-32 days (range 28-35 days), done by both parents (Harrison 1978). Young are semiprecocial, and leave the nest permanently after about 15 days. Then gather into flocks or "creches" with other juveniles, and rove about the nesting colony until they can fly at about 25-30 days. While young are in creches, adults are able to locate and feed them (Buckley and Buckley 1972). Adults have been observed feeding 7-month offspring on the wintering ground (Terres 1980).

Niche: Populations in the eastern U.S. were reduced greatly during the 1800s by slaughter for the millinery trade, shooting, and egg collecting for food (Bent 1921). Tends to associate with gulls more than with other terns (Dawson 1923). Less aggressive than the Caspian tern and other close relatives (Bent 1921).

REFERENCES

Bent, A. C. 1921. Life histories of North American gulls and terns. U.S. Natl. Mus. Bull. 113. 345pp.

Buckley, F.G., and P. A. Buckley. 1972. The breeding ecology of royal terns, Sterna (Thalasseus) maxima maxima. lbis 114:344-359.

Cogswell, H. L. 1977. Water birds of California. Univ. California Press, Berkeley. 399pp.

Dawson, W. L. 1923. The birds of California. 4 Vols. South Moulton Co., San Diego. 2121pp.

Garrett, K., and J. Dunn. 1981. Birds of southern California. Los Angeles Audubon Soc. 408pp.

Grinnell, J., and A. H. Miller. 1944. The distribution of the birds of California. Pac. Coast Avifauna No. 27. 608pp.

Harrison, C. 1978. A Field guide to the nests, eggs and nestlings of North American birds. W. Collins Sons and Co., Cleveland, OH. 416pp.

Harrison, P. 1983. Seairds: an identification guide. Houghton Mifflin Co., Boston, MA. 448pp.

McCaskie, G., P. De Benedictis, R. Erickson, and J. Morlan. 1979. Birds of northern California, an annotated field list. 2nd ed. Golden Gate Audubon Soc., Berkeley. 84pp.

Terres, J. K. 1980. The Audubon Society encyclopedia of North American birds. A. knopf, New York. 1100pp..

Small, A. 1974. The birds of California. Winchester Press, New York. 310pp.